ABSTRACT OF DISCLOSURE

A method and an apparatus to divide image blocks to improve the quality of intermediate images by splitting each macro image block (macro block) in left-eye and right-eye views into sub image blocks (sub blocks) according to quadtree disparity estimation, and then splitting each sub block into smaller sub blocks. The method includes setting a plurality of splitting threshold values for a macro block in an image frame and determining whether to split the macro block into sub blocks, and setting a plurality of splitting threshold values for each sub block and determining whether to split each sub block into smaller sub blocks.